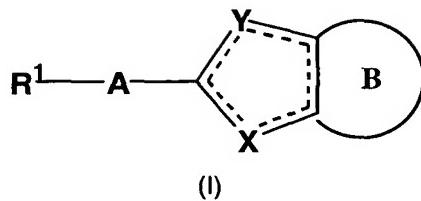


CLAIMS

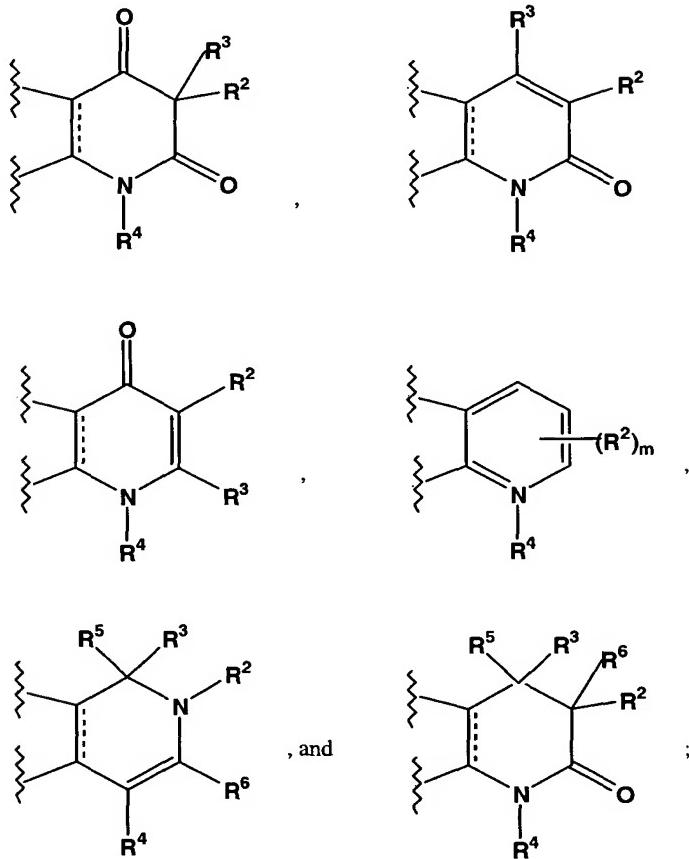
1. A compound of the formula (I):

5



wherein A is $-\text{NR}(\text{C}=\text{O})$, $-(\text{C}=\text{O})\text{NR}$, $(\text{C}_2\text{-}\text{C}_6)\text{alkynyl-}$, or a bond;
X is selected from $-\text{N}=$, $-\text{NR}^9$, $-\text{O}-$, $-\text{S}-$, $-\text{CR}^{10}-$, $>\text{C}(\text{R}^{11})_2$,
10 Y is selected from $-\text{N}=$, $-\text{NR}^9$, $-\text{O}-$, $-\text{S}-$, $-\text{CR}^{10}-$, $>\text{C}(\text{R}^{11})_2$;

with the proviso that when Y is O or S, X is not O or S;
dashed lines represent optional double bonds;
ring B is selected from the group consisting of:



wherein each R, R¹, R², R³, R⁵, R⁶, R⁹, R¹⁰, and R¹¹ are the same or different, wherever they appear, and each is independently selected from the group consisting of (C₁-C₆)alkyl-, (C₂-C₆)alkenyl-, (C₂-C₆)alkynyl-, (C₃-C₁₀)cycloalkyl-, (C₆-C₁₀)aryl-, (C₁-C₁₀)heterocyclyl-, (C₁-C₁₀)heteroaryl-, (C₃-C₁₀)cycloalkyl-(C₁-C₆)alkyl-, (C₆-C₁₀)aryl-(C₁-C₆)alkyl-, (C₁-C₁₀)heterocyclyl-(C₁-C₆)alkyl-, (C₁-C₁₀)heteroaryl-(C₁-C₆)alkyl-, (C₃-C₁₀)cycloalkyl-(C₂-C₆)alkenyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkenyl-, (C₁-C₁₀)heterocyclyl-(C₂-C₆)alkenyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkynyl-, (C₁-C₁₀)heteroaryl-(C₂-C₆)alkynyl-, (C₃-C₁₀)cycloalkyl-(C₂-C₆)alkynyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkynyl-, (C₁-C₁₀)heterocyclyl-(C₂-C₆)alkynyl-, (C₁-C₁₀)heteroaryl-(C₂-C₆)alkynyl-; wherein each of the aforesaid group members, (C₁-C₆)alkyl-, (C₂-C₆)alkenyl-, (C₂-C₆)alkynyl-, (C₃-C₁₀)cycloalkyl-, (C₆-C₁₀)aryl-, (C₁-C₁₀)heterocyclyl-, (C₁-C₁₀)heteroaryl-, (C₃-C₁₀)cycloalkyl-(C₁-C₆)alkyl-, (C₆-C₁₀)aryl-(C₁-C₆)alkyl-, (C₁-C₁₀)heterocyclyl-(C₁-C₆)alkyl-, (C₁-C₁₀)heteroaryl-(C₁-C₆)alkyl-, (C₃-C₁₀)cycloalkyl-(C₂-C₆)alkenyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkenyl-, (C₁-C₁₀)heterocyclyl-(C₂-C₆)alkenyl-, (C₃-C₁₀)cycloalkyl-(C₂-C₆)alkynyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkynyl-, (C₁-C₁₀)heterocyclyl-(C₂-C₆)alkynyl-, and (C₁-C₁₀)heteroaryl-(C₂-C₆)alkynyl-, may be optionally independently substituted with one to three suitable substituents selected from the group consisting of hydrogen, halogen, hydroxy, -CN, (C₁-C₄)alkyl-, (C₁-C₄)alkoxy-, CF₃-, CF₃O-, (C₆-C₁₀)aryl-, (C₁-C₁₀)heteroaryl-, (C₆-C₁₀)aryl-(C₁-C₄)alkyl-, (C₁-C₁₀)heteroaryl-(C₁-C₄)alkyl-, HO(C=O)-, (C₁-C₄)alkyl-(O)(C=O)-, (C₁-C₄)alkyl-(O)(C=O)(C₁-C₄)alkyl-, (C₁-C₄)alkyl-(C=O)-, (C₁-C₄)alkyl-(C=O)(C₁-C₄)alkyl-, -(S=O)R, -(SO₂)R, and NR⁷R⁸ wherein R⁷ and R⁸ are independently selected from hydrogen, (C₁-C₆)alkyl;

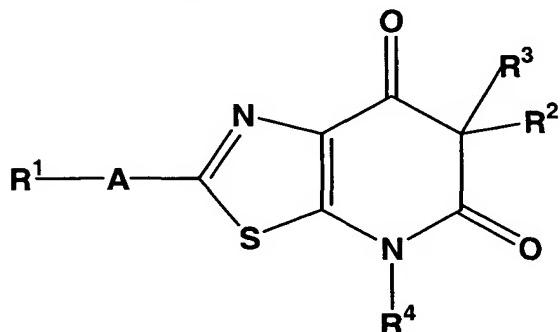
R, R³, R⁵, R⁶, R⁹, R¹⁰, and R¹¹ may further be hydrogen;

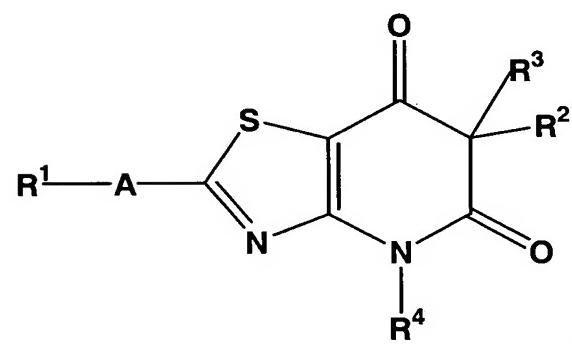
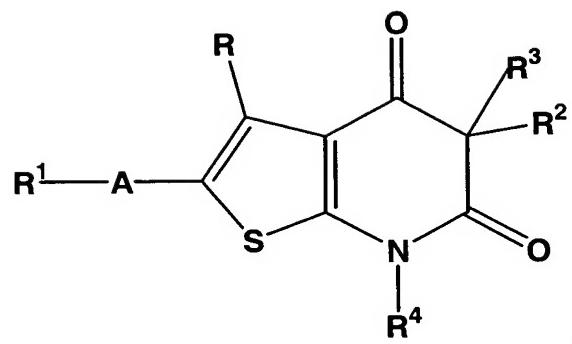
R⁴ is selected from the group consisting of hydrogen and (C₁-C₆)alkyl-, and R⁴ may be optionally substituted with one to three suitable substituents selected from the group consisting of halogen, hydroxy, -CN, CF₃-, and CF₃O-;

m is an integer from 0-3; or

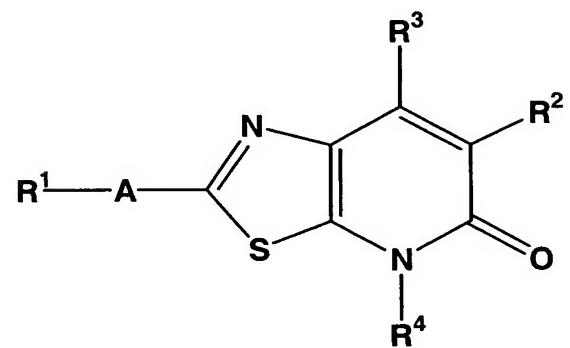
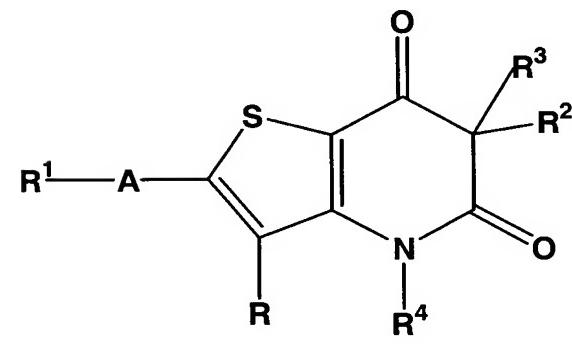
a pharmaceutically acceptable salt thereof.

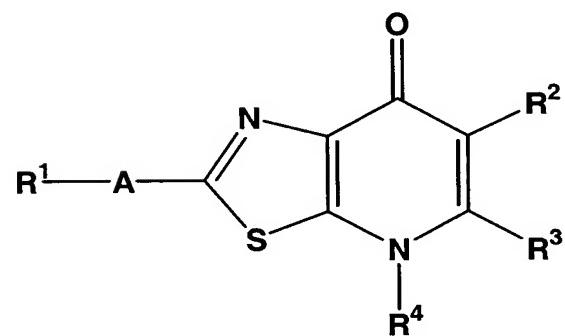
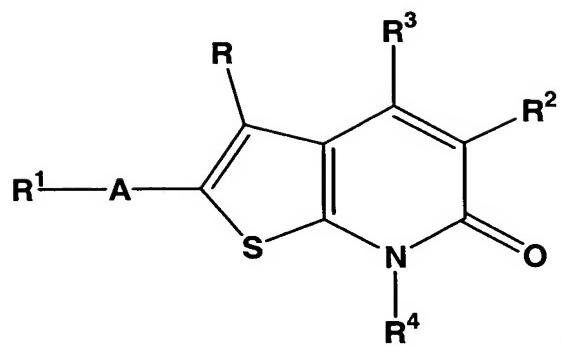
2. A compound according to claim 1 selected from the group consisting of:



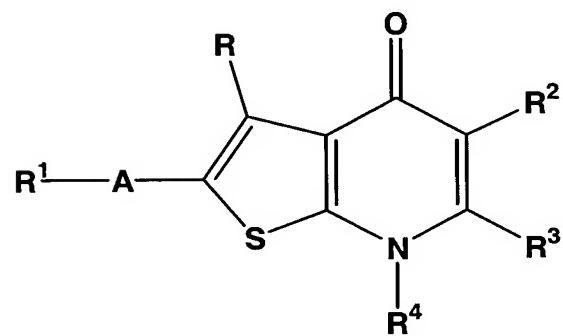


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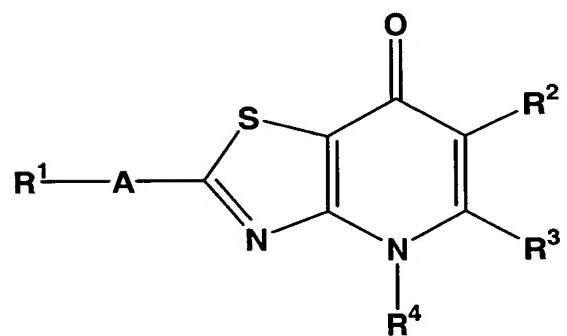
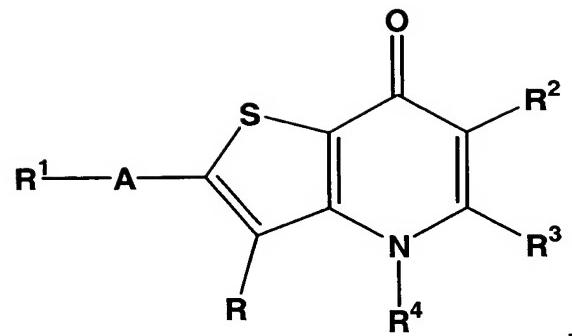




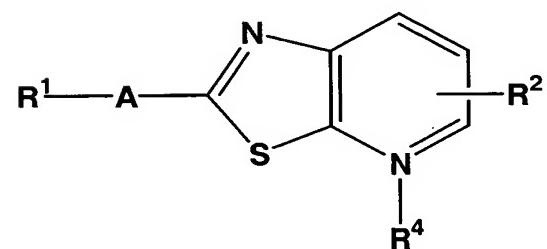
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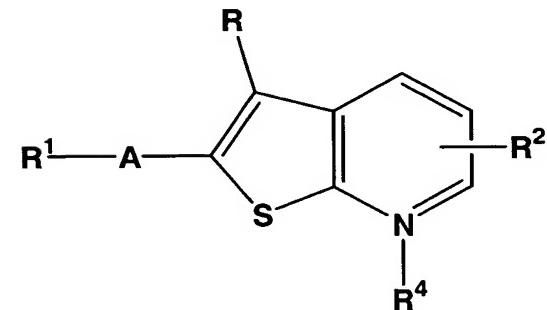
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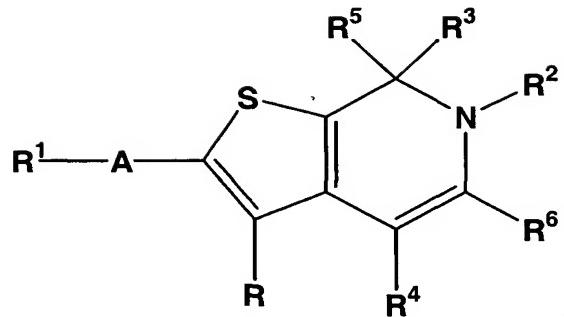


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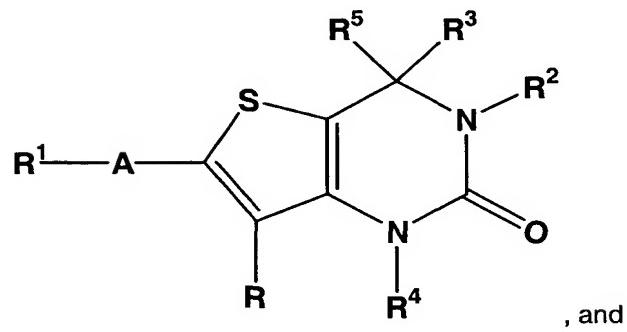


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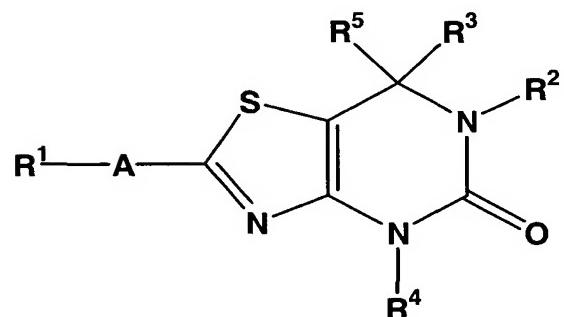




5



, and



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, or

a pharmaceutically acceptable salt thereof.

3. A compound of any Claim 1 or Claim 2, wherein R¹ and R² are each independently selected from (C₃-C₁₀)cycloalkyl-(C₁-C₆)alkyl-, (C₆-C₁₀)aryl-(C₁-C₆)alkyl-, (C₁-C₁₀)heterocyclyl-(C₁-C₆)alkyl-, (C₁-C₁₀)heteroaryl-(C₁-C₆)alkyl-, (C₃-C₁₀)cycloalkyl-(C₂-C₆)alkenyl-, (C₆-C₁₀)aryl-(C₂-C₆)alkenyl-, (C₁-C₁₀)heterocyclyl-(C₂-C₆)alkenyl-, (C₁-C₁₀)heteroaryl-(C₂-C₆)alkenyl-, (C₃-

C_{10})cycloalkyl-(C_2 - C_6)alkynyl-, (C_6 - C_{10})aryl-(C_2 - C_6)alkynyl-, (C_1 - C_{10})heterocyclyl-(C_2 - C_6)alkynyl-, and (C_1 - C_{10})heteroaryl-(C_2 - C_6)alkynyl-.

4. The compound of Claim 3, wherein each of R^3 , R^4 , R^5 , and R^6 is independently selected from the group consisting of hydrogen and (C_1 - C_6)alkyl-.

5. The compound according to Claim 1 selected from the group consisting of:
6-(3,4-Difluoro-benzyl)-4-methyl-5,7-dioxo-4,5,6,7-tetrahydro-thiazolo[5,4-b]pyridine-2-carboxylic acid (2-methoxy-pyridin-4-ylmethyl)-amide;
10 6-(3,4-Difluoro-benzyl)-4-methyl-5,7-dioxo-4,5,6,7-tetrahydro-thiazolo[5,4-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-amide;
6-(3,4-Difluoro-benzyl)-4-methyl-5,7-dioxo-4,5,6,7-tetrahydro-thiazolo[5,4-b]pyridine-2-carboxylic acid benzylamide;
15 5-(3,4-Difluoro-benzyl)-7-methyl-4,6-dioxo-4,5,6,7-tetrahydro-thieno[2,3-b]pyridine-2-carboxylic acid benzylamide;
5-(3,4-Difluoro-benzyl)-7-methyl-4,6-dioxo-4,5,6,7-tetrahydro-thieno[2,3-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-amide;
20 5-(3,4-Difluoro-benzyl)-7-methyl-4,6-dioxo-4,5,6,7-tetrahydro-thieno[2,3-b]pyridine-2-carboxylic acid (2-methoxy-pyridin-4-ylmethyl)-amide;
6-(3,4-Difluoro-benzyl)-4-methyl-5-oxo-4,5-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid benzylamide;
25 6-(3,4-Difluoro-benzyl)-4-methyl-5-oxo-4,5-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid (pyridin-3-ylmethyl)-amide;
6-(3,4-Difluoro-benzyl)-4-methyl-5-oxo-4,5-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-amide;
30 6-(3,4-Difluoro-benzyl)-4-methyl-5-oxo-4,5-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid benzylamide;
5-(3,4-Difluoro-benzyl)-7-methyl-6-oxo-6,7-dihydro-thieno[2,3-b]pyridine-2-carboxylic acid (2-methoxy-pyridin-4-ylmethyl)-amide;
35 5-(3,4-Difluoro-benzyl)-7-methyl-6-oxo-6,7-dihydro-thieno[2,3-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-amide;
6-(4-Fluoro-benzyl)-4-methyl-7-oxo-4,7-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-amide;
6-(4-Fluoro-benzyl)-4-methyl-7-oxo-4,7-dihydro-thiazolo[5,4-b]pyridine-2-carboxylic acid benzylamide; or
a pharmaceutically acceptable salt thereof.

6. The compound according to Claim 1 selected from the group consisting of:
4-(2-Benzylcarbamoyl-4-methyl-7-oxo-4,7-dihydro-thiazolo[5,4-b]pyridin-6-ylmethyl)-
benzoic acid;
- 5 5-(4-Fluoro-benzyl)-7-methyl-4-oxo-4,7-dihydro-thieno[2,3-b]pyridine-2-carboxylic acid
(pyridin-4-ylmethyl)-amide;
5-(3,4-Difluoro-benzyl)-7-methyl-4-oxo-4,7-dihydro-thieno[2,3-b]pyridine-2-carboxylic
acid benzylamide;
- 10 4-(2-Benzylcarbamoyl-7-methyl-4-oxo-4,7-dihydro-thieno[2,3-b]pyridin-5-ylmethyl)-
benzoic acid.
4-{2-[(2-Methoxy-pyridin-4-ylmethyl)-carbamoyl]-thiazolo[5,4-b]pyridin-6-ylmethyl}-
benzoic acid;
- 15 4-(2-Benzylcarbamoyl-thiazolo[5,4-b]pyridin-6-ylmethyl)-benzoic acid;
6-(3,4-Difluoro-benzyl)-thiazolo[5,4-b]pyridine-2-carboxylic acid benzylamide;
- 15 4-(2-Benzylcarbamoyl-thieno[2,3-b]pyridin-5-ylmethyl)-benzoic acid;
4-{2-[(Pyridin-4-ylmethyl)-carbamoyl]-thieno[2,3-b]pyridin-5-ylmethyl}-benzoic acid;
5-(3,4-Difluoro-benzyl)-thieno[2,3-b]pyridine-2-carboxylic acid (pyridin-4-ylmethyl)-
amide;
- 20 6-(3,4-Difluoro-benzyl)-5,7-dioxo-4,5,6,7-tetrahydro-thiazolo[4,5-b]pyridine-2-
carboxylic acid (pyridin-4-ylmethyl)-amide;
6-(4-Fluoro-benzyl)-4-methyl-5,7-dioxo-4,5,6,7-tetrahydro-thieno[3,2-b]pyridine-2-
carboxylic acid benzylamide;
- 25 4-{1-Methyl-2-oxo-6-[(pyridin-4-ylmethyl)-carbamoyl]-1,4-dihydro-2H-thieno[3,2-
d]pyrimidin-3-ylmethyl}-benzoic acid;
- 6-(4-Fluoro-benzyl)-4-methyl-5-oxo-4,5,6,7-tetrahydro-thiazolo[4,5-d]pyrimidine-2-
carboxylic acid benzylamide;
- 30 6-(3,4-Difluoro-benzyl)-4-methyl-7-oxo-4,7-dihydro-thieno[3,2-b]pyridine-2-carboxylic
acid (pyridin-4-ylmethyl)-amide;
6-Benzyl-4-methyl-7-oxo-4,7-dihydro-thiazolo[4,5-b]pyridine-2-carboxylic acid (pyridin-
4-ylmethyl)-amide;
- 30 6-(3,4-Difluoro-benzyl)-4-methyl-6,7-dihydro-thieno[2,3-c]pyridine-2-carboxylic acid
benzylamide; and
- 35 6-(3,4-Difluoro-benzyl)-4-methyl-6,7-dihydro-thieno[2,3-c]pyridine-2-carboxylic acid
(pyridin-3-ylmethyl)-amide; or
35 a pharmaceutically acceptable salt thereof.

7. The compound according to Claim 1 selected from the group consisting of:

- 6-(3,4-Difluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thiazolo[5,4-b]pyridine-5,7-dione;
- 5-(3,4-Difluoro-benzyl)-7-methyl-2-(3-phenyl-prop-1-ynyl)-7H-thieno[2,3-b]pyridine-4,6-dione;
- 5 6-(3,4-Difluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thiazolo[5,4-b]pyridin-5-one;
- 5-(3,4-Difluoro-benzyl)-7-methyl-2-(3-phenyl-prop-1-ynyl)-7H-thieno[2,3-b]pyridin-6-one;
- 6-(4-Fluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thiazolo[5,4-b]pyridin-7-one;
- 10 4-[4-Methyl-7-oxo-2-(3-phenyl-prop-1-ynyl)-4,7-dihydro-thiazolo[5,4-b]pyridin-6-ylmethyl]-benzoic acid;
- 5-(4-Fluoro-benzyl)-7-methyl-2-(3-phenyl-prop-1-ynyl)-7H-thieno[2,3-b]pyridin-4-one;
- 5-(3,4-Difluoro-benzyl)-7-methyl-2-(3-phenyl-prop-1-ynyl)-7H-thieno[2,3-b]pyridin-4-one;
- 15 4-[7-Methyl-4-oxo-2-(3-phenyl-prop-1-ynyl)-4,7-dihydro-thieno[2,3-b]pyridin-5-ylmethyl]-benzoic acid;
- 4-[2-(3-Phenyl-prop-1-ynyl)-thiazolo[5,4-b]pyridin-6-ylmethyl]-benzoic acid;
- 6-(3,4-Difluoro-benzyl)-2-(3-phenyl-prop-1-ynyl)-thiazolo[5,4-b]pyridine;
- 4-[2-(3-Phenyl-prop-1-ynyl)-thieno[2,3-b]pyridin-5-ylmethyl]-benzoic acid;
- 20 5-(3,4-Difluoro-benzyl)-2-(3-phenyl-prop-1-ynyl)-thieno[2,3-b]pyridine;
- 6-(3,4-Difluoro-benzyl)-2-(3-phenyl-prop-1-ynyl)-4H-thiazolo[4,5-b]pyridine-5,7-dione;
- 6-(4-Fluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thieno[3,2-b]pyridine-5,7-dione;
- 25 4-[1-Methyl-2-oxo-6-(3-phenyl-prop-1-ynyl)-1,4-dihydro-2H-thieno[3,2-d]pyrimidin-3-ylmethyl]-benzoic acid;
- 6-(4-Fluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-6,7-dihydro-4H-thiazolo[4,5-d]pyrimidin-5-one;
- 6-(3,4-Difluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thieno[3,2-b]pyridin-7-one;
- 30 6-Benzyl-4-methyl-2-(3-phenyl-prop-1-ynyl)-4H-thiazolo[4,5-b]pyridin-7-one; and
- 6-(3,4-Difluoro-benzyl)-4-methyl-2-(3-phenyl-prop-1-ynyl)-6,7-dihydro-thieno[2,3-c]pyridine; or
- a pharmaceutically acceptable salt thereof.
- 35 8. A pharmaceutical composition for the treatment of a condition selected from the group consisting of connective tissue disorders, inflammatory disorders, immunology/allergy disorders, infectious diseases, respiratory diseases, cardiovascular diseases, eye diseases, metabolic diseases, central nervous system (CNS) disorders, liver/kidney diseases,

reproductive health disorders, gastric disorders, skin disorders and cancers in a mammal, including a human, comprising an amount of a compound of Claim 1 effective in such treatment and a pharmaceutically acceptable carrier.

5 9. The pharmaceutical composition according to Claim 8, wherein the compound of Claim 1 is a compound according to any one of Claims 5 to 7.

10 10. A method for treating arthritis, comprising administering to a patient suffering from an arthritis disease a nontoxic antiarthritic effective amount of a compound of Claim 1.

10 11. The method according to Claim 10, wherein the arthritis is osteoarthritis or rheumatoid arthritis.

15 12. The method according to Claim 11, wherein the compound of Claim 1 is a compound according to any one of Claims 5 to 7.